



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029**

Ms. Barbara S. Taylor, Director  
Office of Environmental Health  
West Virginia Department of Health and  
Human Resources  
Capitol and Washington Streets  
1 Davis Square, Suite 200  
Charleston, West Virginia 25301-1798

Dear Ms. Taylor:

Enclosed is the U.S. Environmental Protection Agency Region III (EPA) review of the West Virginia drinking water program for State Fiscal Year 2011. This review covers the Public Water System Supervision Program (PWSS).

The enclosure consists of a comprehensive report and the Semi Annual SFY 2011 Program Guidance/Reporting Checklist and evaluation tool (without attachments). This review incorporates information from the semi-annual progress reports submitted by the West Virginia Environmental Engineering Division (EED), telephone and email follow-up, and communication within EPA covering the activities from July 1, 2010 through June 30, 2011

EPA would like to recognize West Virginia's drinking water program on its success in obtaining primacy for the Lead and Copper Rule Short Term Revisions and Ground Water Rule. However EPA does have concern with the high turnover of staff within EED. This is discussed further in the report.

In addition to the shared responsibility placed on responding to acute health contaminants at all public water systems, EPA will focus FY 2012 program activities on the continuation of emergency preparedness, new rule development and adoption, continuation and improvement of operator certification programs and continued improvement of data quality in SDWIS. EPA is committed to working with you on these activities to achieve these goals. If you have any questions regarding the enclosed review, please do not hesitate to call me at (215) 814-5757 or have your staff contact Wanda F. Johnson at (215) 814-3249.

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Sincerely,

Victoria P. Binetti, Associate Director  
Office of Drinking Water & Source Water  
Protection (3WP30)

Enclosures

bcc (without encls.):

W. Johnson (3WP21)

A. Meadows (3WP21)

M. Brewster (3WP50)

J. Pine (3WP30)

M. Conicelli (3WP22)

Is anyone missing from this list?

**Review of the  
West Virginia Department of Health and Human Resources  
Bureau of Public Health  
Office of Environmental Health Services  
Environmental Engineering Division  
Federally Funded Drinking Water Activities**

## Introduction

This review covers the activities conducted under Public Water System Supervision Program (PWSS), Drinking Water State Revolving Fund (DWSRF) set-aside funded activities, Water Protection Coordination (Security) and Operator Certification Expense Reimbursement Grant federally funded assistance agreements. The report is presented in two parts: 1) a discussion of the Environmental Engineering Division (EED) strengths and those areas where the EPA has concerns, as well as any recommendations, and 2) a detailed checklist that provides the mid-year status on each commitment/activity for the EED. WVDHHR is invited to submit an addendum to this report if it deems that such an addendum is necessary to clarify or counter EPA's findings.

## Purpose of Review

The purpose of this review is to highlight program strengths, areas of progress, and significant accomplishments as well as indicate areas of concern regarding WVDHHR's performance. Where an "Action Item" is identified, EPA will require a response no later than one month after receipt of this report unless specified otherwise. This review is also intended to:

- 1) ensure that the commitments contained in the work plan/application under the grant awards are being performed on schedule,
- 2) ensure that all programmatic terms and conditions are met,
- 3) assess available funding to ensure commitment/activity completion,
- 4) ensure all programmatic, statutory and regulatory requirements are met, and
- 5) ensure equipment purchased under the award is accounted for and properly managed.

## Method of Review

This is a review of submitted progress reports from WVDHHR for State Fiscal Year 2011 and Summary of the 2011 WV Assessment from on-site interviews. Consultation included conversations with EPA's Drinking Water Branch, the Office of Standards, Assessments and Information Management, the Office of Infrastructure and Assistance, the Office of Analytical Services and Quality Assurance, Confidential Business Info staff and additional telephone conversations and email follow-up between EPA and WVDHHR.

## Contents of this Report

- PWSS Grant
- PWSS Program Activities
- Conclusion, Action Items and Reminders

## **Public Water System Supervision (PWSS) Program**

### **Financial Summary**

WVDHHR submitted the final FFR for SFY 2011 to EPA on October 3, 2011. A surplus of \$216,142.63 has been reported. EPA has requested de-obligation and recertification of these funds for use by the state.

Since the award of WVDHHR's 2012 PWSS Grant application in the amount of \$927,675, EPA has funded \$718,709. As of March 2012 60% has been expended. EPA will continue to make partial awards until fully funded as the federal budget permits.

### **Future Funding**

In light of previous federal budget rescissions and the potential for future federal budget cuts, EPA advises WVDHHR to monitor spending closely. When projecting budgets for future PWSS grants, the state should continue to plan appropriately and utilize funds efficiently. Each year, EPA works closely with WVDHHR to ensure that grant funds can be provided as early as possible for state use. EPA is working closely with the EED to ensure timely submission of semi-annual progress reports and future grant applications.

### **Personnel/Staffing**

WVDHHR's EED has been experiencing significant staff turnover. The majority vacancies are due to promotion mobility while some vacancies have been due to retirement or jobs taken outside of WVDHHR. This turnover poses significant challenges in keeping staff sufficiently trained and able to make decisions that are consistent with EED's daily operations and directions.

### **Reporting Reminder**

WVDHHR is reminded to continue reporting on staffing levels especially where vacancies affect work plan activities (e.g., compliance, conducting training and sanitary surveys). This should be a separate narrative or included in progress reports consisting of: 1) a written summary of the status on filling each vacancy (i.e., reviewing applications, interviewing, etc.) and desired time frame for filling positions; 2) a current organization chart to show stability of staffing levels; and 3) a list showing the funding source for all FTEs (filled and vacant), with positions associated to funding source (i.e., PWSS, DWSRF set-aside grant funds, state funds, etc.).

## New Regulation Development

### Highlight

WVDHHR has proposed revisions to its Public Water Systems Operators Regulations. Most notable revisions are the inclusion of systems that retreat finished water (Class R) and steeper timeframe for system owners on notifying changes of operator employment.

WVDHHR is preparing to implement Stage 2 DBP but should be made aware that although Stage 1 monitoring for TTHM/HAA5 will be diminishing, Stage 1 monitoring for chlorine residual, bromate, chlorine dioxide/chlorite will not. The state should continue to monitor for these contaminants with the implementation of Stage 2.

## Groundwater Under the Direct Influence (GUDI) Determinations

GUDI determinations continue to be a priority for the state. WVDHHR's GUDI status of new systems activated or testing new wells after 2004 are; five (5) CWS, ten (10) NTNCs and thirty-seven (37) TNCs. The recent upsurge in the coal industry activity is the primary factor for the increase in request for NTNC systems.

### Recommendation

EPA recommends that WVDHHR conduct GUDI determinations on new water sources prior to these systems going on-line.

### Reporting Reminder

Continue to provide status of GUDI determinations for all new sources that became active after January 1, 2004. This information can be provided in the semi-annual progress reports or in a separate report as done previously.

## Capacity Development

West Virginia's FY 2011 inventory consists of 1,167 public water systems including: 514 CWSs, 138 NTNCWSs, and 515 TNCWSs serving about 1.6 million people. This is the first time that there is an increase in the number of active water systems in West Virginia.

WVDHHR continues to successfully implement its Capacity Development Program (CDP) although they had a staff turnover.

## New Systems

WVDHHR maintains a list that tracks the compliance status of new systems that started operation during the period October 1, 2008 through September 30, 2011.

Eight systems started operation within the last three years (two started last year). Only one

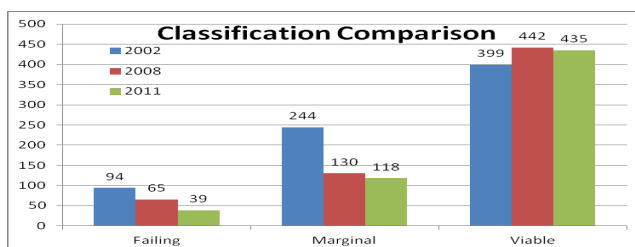
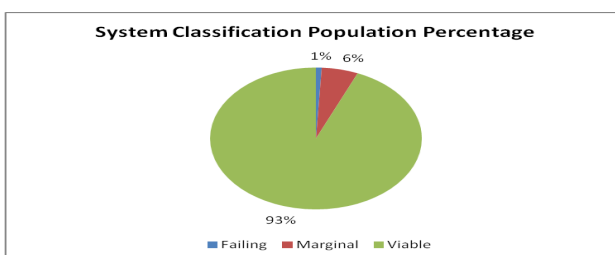
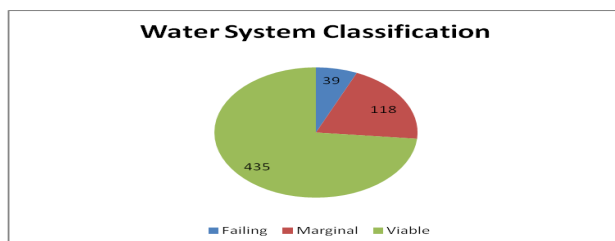
system had an ETT score of more than 10 due to violations of the lead and copper rule that have not been resolved. While a Notice of violation has been sent to this system, staff has provided sampling requirement information to educate the system in an effort to avoid future violations.

The new systems permitting process is discouraging small, new water systems and encouraging proposed systems to connect to or to become part of existing, larger, more viable water systems. Through this process, new systems commonly begin to understand how complex running a water system is and partner with or connect to an existing, more viable system when possible. This is effective in preventing the formation of non-viable PWSs.

## Existing Systems

Since its initial baseline conducted in 2002, WVDHHR has provided an update every three (3) years to help evaluate the CDP. The most recent update was in 2011. The data which are used to measure improvement in system capacity showed that existing system's assessment activities were having a positive impact on water systems.

The 2011 baseline ranking data showed that 435 (73%) of the community and NTNC water systems in West Virginia are viable systems; leaving 118 (20%) that are marginal and 39 (7%) that are failing. Viable water systems serve 1.4 million (94%) of the population while failing and marginal systems serve 96,497 (or 6%) of the population. The figures below show the improvement in systems' capacity.



WVDHHR continues to provide assistance to water systems by conducting Capacity Development Assessments (CDA) - a complete evaluation of their technical, managerial, and financial (TMF) capabilities and needs. WV DHHR provides recommendations to address those needs which will lead to long term viability. The CDP continues to focus on making the reports more "reader friendly" and helpful to the water systems.

In FY2006, WV started shifting resources within its program to provide more pro-active water system assistance and having one staff person focused completely on assessment follow-up and assistance. In FY2010, WV started providing more pro-active follow-up assistance and adopted a follow-up timeframes of: 30, 60, 90, 180, and 360 days to monitor system compliance with recommendations identified in the Capacity Development Assessments (CDA) provided. WV is intended to have its entire staff involved in follow-ups to provide more effective assistance to water systems and to minimize, as much as possible, disruptions in assistance caused by personnel changes. During FY2011, 26 water systems were assessed (83 systems were assessed over the last four years). Some assessments included multiple water systems having separate PWSID numbers, although, they were counted as one CDA.

Additional assistance provided by WVDHHR to water systems through field staff and the Capacity Development Team include a variety of activities related to the Area Wide Optimization Program, the Consumer Confidence Report, asset management, emergency response plans, Disinfection Byproduct Rule, etc.

### Highlight

The Capacity Development staff made extraordinary efforts in working with systems that were historically poor performers; those having failing baseline scores and a history of non-compliance to help them achieve viability. Staff made frequent phone calls to the systems, showed up onsite, or attended meetings of the residents, etc. The CDP staff work diligently to assist those struggling systems including aligning them with other more viable systems for merger.

WVDHHR has continued with its Capacity Assistance Partnership Developing Essential Viability (CAPDEV) outreach initiative. The CAPDEV outreach initiative was created to provide TMF assistance to drinking water systems staff. CAPDEV is the second phase of the CDP; the first phase is the CDA. Through CAPDEV, West Virginia is encouraging water system cooperation, personnel and/or equipment sharing agreements, and full or partial consolidation.

In FY2011 one employee provided asset management plan (including the Check Up Program for Small Systems - CUPSS) guidance and asset management plan review for water systems. Participation in this process was enhanced by DWTRF bond requirements which require an Asset Management Program be established within six (6) months of substantial completion. The CDP continues to actively market the importance of establishing an Asset Management Program and provide training on Asset Management at events attended by water systems personnel.

In addition to direct contact while conducting CDAs and follow-up assistance activities, CDP staff provides training to water system operators by teaching various courses. During FY2011, 347 water operators (of all classes) were trained and 1293 were certified. Additionally, 26 people were trained on backflow prevention and 111 were certified. Finally, 159 people were certified as water well drillers and 73 people were certified as pump installers.

Third party assistance providers assist water systems through on-site, hands-on assistance; workshops; seminars and training sessions; and self-help guidance documents.

The CDP progress is continuously being evaluated using a list of parameters. During the last re-assessment, the following were noticed:

- An increase in the number of viable systems from 399 systems in 2002 to 435 in 2011,
- A decrease in the number of failing systems from 94 systems in 2002 to 39 in 2011, and
- The number of marginal systems has decreased from 244 systems in 2002 to 118 systems in 2008.

WVDHHR submitted to their Governor a report on the efficacy of the Capacity Development Program and progress made toward improving the TMF capacity of public water systems in West Virginia. The report was submitted by the due date (September 30, 2011) and was made available to the public. An article on the CDP's achievements was published.

WVDHHR developed partnership with other Drinking Water Education and Training Coalition members (WV Rural Water Association, WV Rural Community Assistance Program, National Drinking Water Clearing House, Public Service Commission of WV, WV chapter of the American Water Works Association, and WV Environmental Training Center) and developed a comprehensive annual training calendar. More than 3,000 calendars were printed and distributed to water operators, board members, system managers, and others concerned with operator certification and training. The calendar is used to keep water system personnel informed of important drinking water education and training opportunities. Instead of reviewing multiple calendars for training options, the new consolidated calendar will allow operators to review training options from a single source.

In FY2011, CDP staff continued to work with the National Environmental Services Center (NESC) in developing, with CDP oversight and review, two important water system assistance tools/programs using sub-recipient grant funds. These tools/programs are:

- **West Virginia Water System Utility Management Institute Training (WVWSUMIT):**  
The comprehensive training curriculum for water system managers consists of six individual courses that are designed to last from one to three days each. The training material is based on the Kentucky Utility Management Institute curriculum, which was developed by the Kentucky Rural Water Association and Western Kentucky University. The Kentucky materials have been modified to meet the specific needs of West Virginia's water systems and updated to address new regulations and contemporary management issues. They were also updated electronically to make the material easier to modify and update in the future and to convert the visual medium from overhead transparencies to PowerPoint slides.
- **West Virginia Water System Evaluation Tool (WVWSET):**  
The West Virginia Water System Evaluation Tool (WVWSET) will enable water systems to self-assess their water system's technical, managerial, and financial capabilities. The end-users of the tool will have a better understanding of the challenges affecting sustainable practices and can begin to address deficiencies. This tool provides instant feedback to the participants and also provides a list of resources for additional information on specific topics as well as a detailed list of assistance providers. The tool is being used, under contract with OEHS, by a third party assistance organization that is helping water systems to complete the self-assessment during on-site visits. The vendor for this project was secured in June of 2011



and program implementation began immediately with meetings between OEHS and the vendor to establish timetables, deliverables, etc. The vendor was asked to concentrate their efforts on those systems that did not complete the self-assessment during the Baseline process. September 2011 was the first month that the vendor implemented field work with the water systems; completing 6 surveys with water systems during that first month.

### Source Water Assessment & Protection Programs

The West Virginia Department of Health and Human Resources (WV DHHR) continues to increase the number of source water protection activities implemented in the state. The Source Water Protection Technical Help Program (SWPTHP) has proved to be successful with 113 community water systems completing protection plans. The Program was able to achieve these results through contracts with two engineering firms, Potesta, Inc. and Tetra Tech. West Virginia also continues to assist many surface water and ground water community public water systems through source water protection grants. A website for the State's Office of Environmental Health Services provides information on WV's Source Water Assessment Program (SWAP) and Wellhead Protection Program and includes fact sheets, SWAP posters, general information and a listing of SWAP educational courses.

### Highlights

- WV DHHR sponsored, attended and provided an exhibit for the 2011 Groundwater Karst Conference.
- The Source Water Team actively participated in meetings and activities with the River Alert Information Network (RAIN), the Ohio River Valley Water Sanitation Commission (ORSANCO) and the Potomac River Basin Drinking Water Source Protection Partnership.
- Continued to work with and revise the Source Water Protection GIS website which provides source water information to public water systems, federal and local agencies as well as other state programs and agencies.
- WV DHHR's SWPTHP program has assisted 113 public water systems with the development of protection plans

### Action Items

- EPA would like to be kept informed of Source Water Protection Technical Help Program (SWPTHP) contract work progress.

### Recommended Activities for WV DHHR

- Share WV digitized source water protection areas with EPA
- Share with EPA a list of the water systems that have achieved substantial implementation in WV.

### Miscellaneous

- 1). The summary of funding of WVCDRP (noted on p.49 of the Guidance and Reporting Checklist) should note that the educational and outreach efforts are focused on source water protection.
- 2). The following has been funded by WV and I am unsure if these activities are eligible under set-asides:
  - Alarm systems

- Fencing around a control tower
- Pressure transducer

## Data Management/Data Analysis

West Virginia is submitting SDWIS data timely each quarter. Upon reviewing the past 3 quarters of SDWIS/ODS error reports, West Virginia has also been making progress in reducing the number of data errors.

## Highlight

Each year EPA honors ten state persons (one from each Region) at the annual ASDWA Data Management Users Conference. These awards have been well received in the drinking water data management community. For this year's conference in May, WV was nominated by Region 3. The following award criterion was considered:

- Demonstrated leadership in improving SDWIS/State for the betterment of all Primacy Agencies, and/or
- Implemented activities and processes that improved data quality (completeness and accuracy) for their program

With the change to the new Enforcement Targetting Tool (ETT) in July 2010, the criteria for becoming a priority system has changed. There is a new scoring systems and systems that scores above 10 are considered a national priority. The last SNC report was FY10Q1. Another change was the naming convention, after FY10Q1, the ETT started calling the quarterly reports by month and year. Here are the #'s.

	FY10Q1	July 2010 ETT	October 2010 ETT	January 2011 ETT
# of PWS	118	144	135	126
# of Viols.	Unavail	3796	3989	6636

Region 3 made a commitment, for all states, to EPA HQ to address the SNCs from the July 2010 SDWIS data pull. The Region Commitment was to address 500 systems and WV's commitment was to address 160 out of the 500. The last SDWIS data pull from January 2011 shows that WV addressed 70 systems, which is approximately 44% addressed.

During the week of July 7, 2008, EPA assisted in an on-site data verification at WVDHHR's Central Office in Charleston, WV. The state files were very well organized and the support from the state personnel was excellent. A draft report was shared with WVDHHR in October 2008. EPA and WVDHHR discussed details of the report and combined comments were incorporated into the final report that was received by EPA Region III in December 2008 and shared with the state.

## Concern

One major concern is implementation for Stage 1 DBPR and LT1 ESWTR which were noted in the report as not being fully implemented by the state. Discrepancies noted for these two rules are for compliance determinations for monitoring and reporting. The state attributes its problems

in compliance determinations to a lack of staff and failure to inform compliance officers that they could utilize SDWIS State web release 1.0 (SSWR1) to compute compliance determinations. The compliance determination tool had not been working correctly in SDWIS/State. Since the state did not have the manpower to manually do calculations to determine compliance, violations were not issued.

#### Action Plan

To address this concern, EPA is providing an in-kind service contract via DWSRF 10% SetAside to provide various training and develop SOPs (standard operating procedures) for WVDHHR staff on SDWIS-State and NPDWR. The contract will assist WVDHHR with addressing discrepancies from the 2008 on-site data review as well as developing a strategy to fully implementing both rules.

#### Annual Compliance Reports

WVDHHR continues to submit its Annual Compliance Report (ACR) in a timely manner. EPA received its ACR for 2010 in October 2011. .

#### Laboratory Certification

EPA issued its Annual Certification Status Report of WVDHHR's Drinking Water Laboratory Certification Program on December 13, 2010 for the 2011 calendar year. The state laboratory and its commercial laboratory retain certification for 2011.

EPA's Environmental Science Center (ESC) updated the listing of key analytical capabilities for primacy based on the Code of Federal Regulations (CFR) with input from the EPA Office of Ground Water and Drinking Water in Cincinnati and the Region 3 Water Protection Division. This listing is in the Lab Certification Manual as an appendix (Appendix E). The revised listing was shared with the Primary State Laboratory (PSL) Directors and with the State SDWA Program Managers.

#### Highlight

WVDHHR identified a need for its PSL to be certified to test for Disinfection Byproducts. The state had not had the equipment to test for these contaminants previously. However, EPA agrees with the state that it would be beneficial to have the PSL capable of providing certified results especially if a water system lab is having difficulties or unexplained results that could affect water quality. EPA approved the state's request for \$500,000 which will be taken from the 15% Set-aside to purchase the equipment. The state lab will provide the normal maintenance and expense to operate the lab equipment.

#### Quality Management Plan (QMP)

WVDHHR's Drinking Water Program QMP is valid until December 2015.

#### Operator Certification Program

## Program Review

On September 30, 2011, EPA approved the implementation of WVDHHR's Operator Certification Program. Each year a determination is made as to whether the state's program meets EPA guidance. This determination influences the decision to withhold 20% of the state's Drinking Water State Revolving Fund capitalization grant.

## Highlights

WVDHHR solicited the assistance of a review committee to conduct an external review on the implementation of their Program. The external review is a requirement of the Operator Certification Guidelines and must be performed by an entity outside of the state program agency. This can be a contractor/consultant, board or committee of stakeholders, etc. A final report was submitted to EPA. Some noteworthy findings of the committee are:

- WVDHHR was commended for the thoroughness of its exam validation process. Utilizing stakeholders to improve this area strengthens the program.
- Recommendation was made to limit the grace period for expired certifications from 1 year to 30 or 60 days. The liability of a water utility employing operators with expired licenses should be considered as well as the issue of promoting professionalism.
- The state's database was commended for its capacity to obtain pertinent information regarding the certified operators in the state.
- The mailing list for the Drips & Drops Newsletter should include the legally responsible authority of each water utility, not just the operator. This would help improve communication to council and public service district (PSD) board members.

Although state budgets nation-wide have affected travel dollars each year to attend workshops and training, WVDHHR continues to show support through attendance at various EPA forums, i.e., the 2010 National Joint Program Conference for Operator Certification and Capacity Development and the EPA/State Eastern Regional Operator Certification Program Workshops. This reflects the state's commitment to improving the implementation of this Program.

Planning has begun for the next EPA/State Eastern Regional Operator Certification Program Workshop, hosted by Region 5. The theme is sustainability in economically challenging times.

EPA requests that states provide as a "minimum" more quantitative information that allows for an evaluation of progress, for example: reports addressing activities from the previous reporting

period; notes from stake holder meetings and other events; action items and outcomes; and quantitative data such as –

- 1.# of public water systems and/or % of systems in compliance with having a certified operator;
- 2.passing rate of examinations;
- 3.compliance rate for continuing education and certification renewal (i.e., are operators meeting requirements on time, what's the percentage or number of operators who allow their licenses to lapse);
- 4.discussion of issues, (i.e., reasons for non-compliance and plans to address those issues);
- 5.types of training/exercises provided (provide # of operators taking advantage of training made available or total # of hours of training provided and;
- 6.technical assistance to prepare operators for security threats like pandemic flu and new rules.

Details of the minimal content for reporting will be provided in the Reporting Reminder letter to the states in May.

Schedule Reminder

Annual Operator Certification Report is due June 30, 2012.

